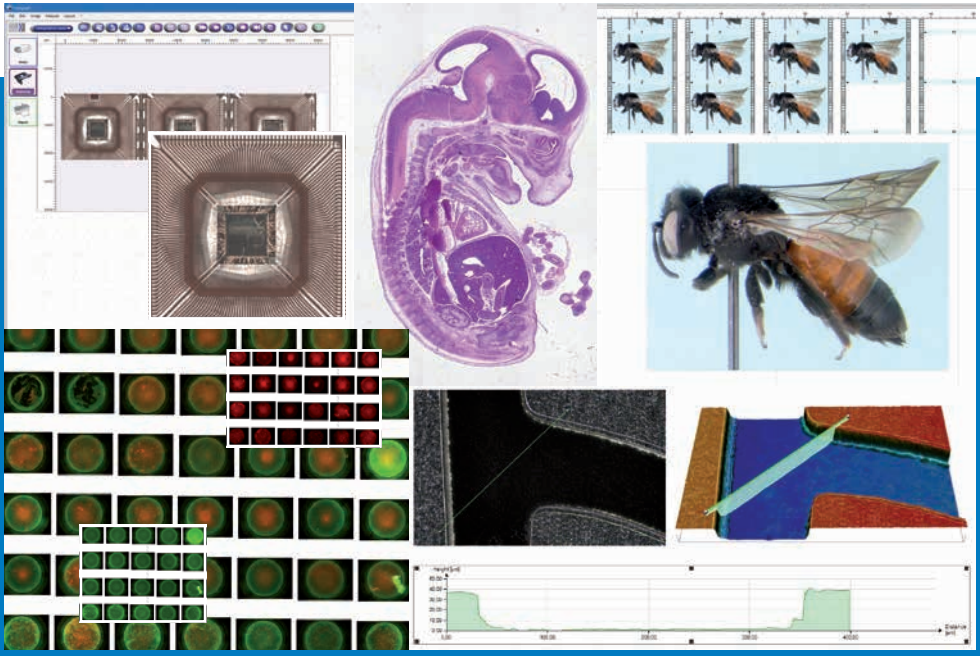
Multidimensional image acquisition

MICROVISION INSTRUMENTS

Extended depth of field, extended field of view

Multifocal stack, cartography, single and multi-channel acquisition



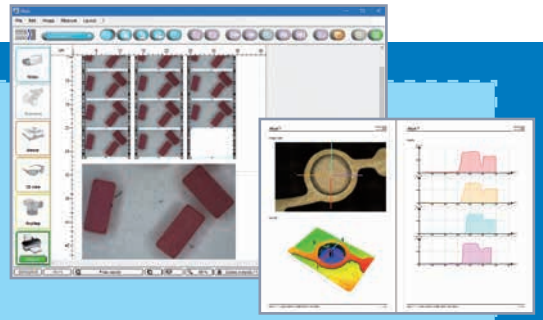
Abys, Cartograph and Irys systems have been designed for all your microscopic or macroscopic image acquisitions, whatever the constraints of the sample to be analyzed:

- **Oversized and / or uneven sample**
- **Single or multi-channel fluorescence observation**
- **Routine automated acquisition of a large number of sample**

- Turnkey systems
- Extended depth of field
- Acquisition beyond the camera field of view
- 3D rendering, sectional view
- Fluorescence or brightfield illumination (reflected / transmitted)
- Cartography and multifocal stack operable with the whole range of Microvision analysis systems

Multidimensional image acquisition

ABYS



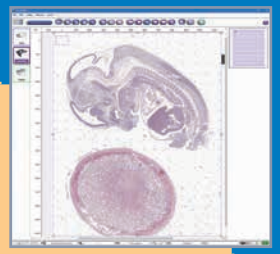
Multifocal stack, 3D rendering and sectional view - Single channel

Abys allows you to acquire and store a 3D view of your samples. Beyond multifocus feature, the system uses depth information to measure depth profiles and shape 3D representation.

SOME APPLICATIONS

- **Cosmetics:** silicone observation in lotion, texture 3D rendering.
- **Entomology:** scan of insects with augmented depth of field.
- **Jewelry:** high-definition acquisition of gems crimped on curved support.
- **3D metrology:** depth profile measurement on high-precision machined parts.

CARTOGRAPH



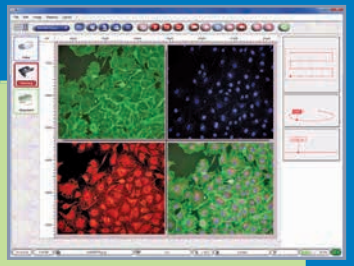
Cartography and extended depth of field Z-stack - Single channel

Create mappings of your oversized samples: high resolution and extended depth of field.

SOME APPLICATIONS

- **Cosmetics:** texture overview, observation of cream homogeneity and density.
- **Materials:** mapping of concrete samples for phase measurement on the resulting overall image.
- **Life sciences:** wide field acquisition for further cell culture reading (Celest), bacterial colonies counting (Cybèle), histology and morphometric measurements (Saisam, Histolab).

IRYS



Cartography and extended depth of field Z-stack - Multi-channel / fluorescence

High resolution fluorescence cartographies / mappings: up to 6 channels plus merged layer.
An optional well plate loader for your routine acquisitions.

SOME APPLICATIONS

- **Virology, immunology:** multi-channel fluorescence acquisition of well plates and measurement of therapeutic activity by spot counting and colocalization (Cosmic).
- **Life sciences:** routine automated acquisition of 96-well plates for further analysis.

	ABYS *Multifocal stack - 3D*	CARTOGRAPH *Cartography - Mapping*	IRYS *Fluorescence cartography*
General features	Extended depth of field / Multifocus		
	3D metrology	Cartography - Wide field	
	Single channel		Multi-channel
SYSTEM COMPONENT			
Optical system	Microscope or magnifier	Microscope or magnifier Motorized Z-axis (option)	
Digital video camera	Color or Black & White		
XY Stage	-	Motorized	Motorized Well plate loader (option)
Lighting	Brightfield, darkfield or polarization Fluorescence		
SOFTWARE APPLICATION			
System settings	Integrated control of all imaging conditions such as microscope and camera settings: lighting, lens, diaphragm, filters, exposure time, gain, white balance… 		
Image enhancement	Monochromatic/dual-color conversion, background correction, X and Y mirror		
Scan	**Z**: Multifocus step or depth of field, stack height or limit positions 	**X, Y**: size, position and shape (circle, rectangle, well plate or free-shape) **Z**: Autofocus or multifocus (step or depth of field, stack height or limit positions)	**X, Y**: size, position and shape (rectangle or well plate) **Z**: Autofocus or multifocus (step or depth of field, stack height or limit positions) **Channel**: filter wheel
Acquisition	Automatic or step-by-step acquisition, once scan area has been settled		
Image	TIFF, JPEG or BMP file format		
Z-stack	Sharp image construction and recording of the reconstructed image		
Data export	Multifocal stack individual images and/or full stack MVZ format (Microvision Z-stack) recording	Individual images and/or MVC format (Microvision Cartography) recording	Cartography of each channel and/or merged channels recording – MVC format (Microvision Cartography)
3D rendering	3D reconstruction and depth profile measurement	-	
Misc.	Image annotation Customizable reports Settings protection by access levels (optional)		

Microvision Instruments **acquisition systems** give you the acquisition comfort you need for your microscopic analysis. They allow you to obtain clear and perfectly resolved images whatever your field of application:

- An **extended depth of field** - sharp images whatever the depth of field of your optics;
- An **extended field of view** for your samples overall analysis.

Multifocal stacks and cartographies can be opened and used by all the Microvision microscopic analysis systems.

Beyond Abys, Cartograph and Irys, Microvision designs acquisition systems according to your own specifications.

Accessories:
Joystick - mapping / cartography review
Micrometer - calibration
Barecode reader

Compatible with Zeiss, Nikon, Olympus, Motic, Optika… devices

Compatible with digital cameras:

- Single / 3-CCD and CMOS sensor
- Color / B&W
- USB2, USB3, IEEE interface

OS: compatible with Windows 7, Windows 10
RAM: 16 GB recommended
Processor: iCore 7 minimum
Peripherals and interfaces: USB3 port and/or PCI express slot

By choosing Microvision, you can rely on:

- Our expertise in object characterization on microscopic and macroscopic scales - over 25 years serving the industry and life sciences
- User friendly systems developed in partnership with the key industrial players
- Strong network of resellers and international tech support

Support and services

- Maintenance contract, Technical assistance
- Advice and expertise, Training

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